

Mr. Robert Burton, Jr.  
RediStrip of New Albany, Inc.  
4160 Capital Drive  
New Albany, Indiana 47150

Dear Mr. Burton :

Re: Revocation of Part 70 Permit TV043-7213-00044  
Exempt Operation Status,  
043-12805-00044

The application from RediStrip of New Albany, Inc. received on October 5, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary metal paint stripping and allied services operation located at 4160 Capital Drive, New Albany, Indiana 47150 is re-classified as exempt from air pollution permit requirements:

- (a) One (1) natural gas-fired paint burn-off oven, ID #1 with two (2) burners with a total heat input capacity of 0.5 million British thermal Units per hour (mmBtu/hr);
- (b) One (1) natural gas-fired paint burn-off oven, ID #2 with two (2) burners with a total heat input capacity of 0.9 million British thermal Units per hour (mmBtu/hr);
- (c) One (1) natural gas-fired paint burn-off oven, ID #3 with two (2) burners with a total heat input capacity of 1.5 million British thermal Units per hour (mmBtu/hr);
- (d) One (1) natural gas-fired paint burn-off oven, ID #4 with three (3) burners with a total heat input capacity of 3.0 million British thermal Units per hour (mmBtu/hr);
- (e) One (1) rinse tank, using soap and water solution with one (1) burner fired by natural gas rated at 0.25 mmBtu/hr; and
- (f) Three (3) blast cabinets and two (2) blast booths utilizing various media (black beauty, plastic, glass bed, and aluminum oxide). The blast operation is capable of using a total of 18,000 pounds of media per year (2.05 pound per hour). The particulate matter (PM) emissions from each cabinet/booth is controlled by its dedicated baghouse or filter system.

The following conditions shall be applicable:

(1) Opacity Limitations [326 IAC 5-1-2]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Process Operations' PM Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions from the shot blasting operation shall be limited to 0.04 pound per hour at a process weight rate of 18,000 lb/yr. This limit shall be determined using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where: E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

(3) Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2 , the four paint burn-off ovens shall:

- (a) Consists of primary and secondary chambers or the equivalent;
- (b) Be equipped with a primary burner unless burning wood products;
- (c) Comply with 326 IAC 5-1 and 326 IAC 2;
- (d) Be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) Be operated according to the manufacturer recommendations and only burn waste approved by the commissioner;
- (f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) Not emit particulate matter in excess of:
  - (1) five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (i) Not create nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

This exemption shall supersede the Part 70 permit TV043-7213-00044, issued on March 30, 1998.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

APD

cc: File -Floyd County  
Floyd County Health Department  
Air Compliance - Joe Foyst  
Permit Tracking - Janet Mobley  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for an Exemption

#### Source Background and Description

Source Name: RediStrip of New Albany, Inc.  
Source Location: 4160 Capital Drive, New Albany, Indiana 47150  
County: Floyd  
SIC Code: 3470, 3479  
Operation Permit No.: 043-12805-00044  
Permit Reviewer: Aida De Guzman

The Office of Air Management (OAM) has reviewed an application from RediStrip of New Albany, Inc. relating to the operation of a stationary metal paint stripping and allied services operation. This plant includes the following equipment:

- (a) One (1) natural gas-fired paint burn-off oven, ID #1 with two (2) burners with a total heat input capacity of 0.5 million British thermal Units per hour (mmBtu/hr);
- (b) One (1) natural gas-fired paint burn-off oven, ID #2 with two (2) burners with a total heat input capacity of 0.9 million British thermal Units per hour (mmBtu/hr);
- (c) One (1) natural gas-fired paint burn-off oven, ID #3 with two (2) burners with a total heat input capacity of 1.5 million British thermal Units per hour (mmBtu/hr);
- (d) One (1) natural gas-fired paint burn-off oven, ID #4 with three (3) burners with a total heat input capacity of 3.0 million British thermal Units per hour (mmBtu/hr);
- (e) One (1) rinse tank, using soap and water solution with one (1) burner fired by natural gas rated at 0.25 mmBtu/hr; and
- (f) Three (3) blast cabinets and two (2) blast booths utilizing various media (black beauty, plastic, glass bed, and aluminum oxide). The blast operation is capable of using a total of 18,000 pounds of media per year (2.05 pound per hour). The particulate matter (PM) emissions from each cabinet/booth is controlled by its dedicated baghouse or filter system.

#### Existing Approvals

The source has been operating under a **Part 70 permit TV043-7213-00044**, issued on March 30, 1998. During that time the source was operating a methylene chloride solvent degreaser for paint stripping that was major for HAP (methylene chloride). This degreaser has been dismantled and no longer operational. Since this degreaser is no longer operational, the source requested that their Part 70 permit be revoked, and instead issue an **Exemption** for the remaining equipment.

## Recommendation

The staff recommends to the Commissioner that the **operation** be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 5, 2000, with additional information received on November 1, 2000.

## Emission Calculations

(a) Natural Gas Combustion Emissions: See Page 1 of 1 TSD Appendix A of this document for detailed emissions calculations.

(b) Four Paint Burn-Off Ovens or Pyrolytic Ovens:

Maximum Paint Waste Combusted	- 161,200 lbs/yr
	- 18.4lb/hr
Stack Flow Rate (outlet)	- 104 dry standard cubic foot per minute (dscf)
Inlet grain loading	- 0.0452 grain per dry standard cubic foot (gr/dscf)
Outlet grain loading	- 0.0371 gr/dscf
Inlet PM/PM10 Emissions	= 104 dscf/min * 60min/hr * 0.0452 gr/dscf * lb/7000 gr * ton/2000 lb * 8760 hrs/yr = 0.18 ton/yr * 4 ovens = 0.72 ton/yr
Outlet PM/PM10 Emissions	= 104 dscf/min * 60min/hr * 0.0371 gr/dscf * lb/7000 gr * ton/2000 lb * 8760 hrs/yr = 0.14 ton/yr * 4 ovens = 0.56 ton/yr

(c) Shot Blasting Operation Emissions: This operation is controlled by baghouses and filters

Blasting Rate (lbs/yr)	PM Emission Factor (lbPM/lb abrasive)	PM10 Emission Factor (lbPM10/lb PM)	PM Uncontrolled Emissions (tons/year)	PM Controlled Emissions (tons/year)	PM10 Uncontrolled Emissions (tons/year)	PM10 Controlled Emissions (tons/year)
18,000	0.01	0.86	0.09	0.0	0.08	0.0

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.91
PM-10	1.0
SO <sub>2</sub>	0.0
VOC	0.1
CO	2.3
NO <sub>x</sub>	2.7

### Justification of the Level of Approval

This is an existing permitted Part 70 source. With the removal of the methylene chloride paint stripper (degreaser), the source is no longer a Part 70 source. Pursuant to 326 IAC 2-1.1-3(a), the source is now exempted from permitting requirements, because the potential to emit of any regulated pollutant from the entire source does not exceed the emission threshold required to have a registration or permit under this article.

### Potential to Emit After Controls

Existing re-permitted Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Natural Gas Combustion	0.1	0.2	0.0	0.1	2.3	2.7	0.0
Paint Burn-Off Ovens	0.72	0.72	0.0	0.0	0.0	0.0	0.0
Shot Blasting Operation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Emissions	0.82	0.92	0.0	0.1	2.3	2.7	0.0

- (a) This existing re-permitted source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### County Attainment Status

The source is located in Floyd County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	moderate nonattainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Floyd County has been designated as nonattainment for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Floyd County has been classified as attainment for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This existing source status has been changed from a Part 70 source to an exempted source because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

## Federal Rule Applicability

- (a) New Source Performance Standards (NSPS):  
There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs):  
There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

## State Rule Applicability - Entire Source

- (a) 326 IAC 5-1 (Visible Emissions Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

## State Rule Applicability - Individual Facilities

- (a) 326 IAC 6-3-2 (Process Operations)  
The PM emissions from the shot blasting operation shall be limited using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$\begin{aligned} E &= 4.10 P^{0.67} \\ &= 4.10 (18,000 \text{ lb/yr} * \text{yr}/8760 \text{ hr} * \text{ton}/2000 \text{ lb})^{0.67} \\ &= 0.04 \text{ lb/hr} \end{aligned}$$

where: E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

This operation will be in compliance with this rule, because its PM emission is controlled by baghouses and filters. The baghouses and filters shall be in operation at all times the shot blasting is in operation, in order to comply with this limit.

(b) 326 IAC 4-2-2 (Incinerators)

The four (4) natural gas-fired paint burn-off ovens ID#1, ID#2, ID#3 and ID#4 are subject to 326 IAC 4-2. This rule requires that these ovens shall meet the following:

- (1) Consists of primary and secondary chambers or the equivalent;  
Be equipped with a primary burner unless burning wood products;
- (2) Comply with 326 IAC 5-1 and 326 IAC 2;
- (3) Be maintained properly as specified by the manufacturer and approved by the commissioner;
- (4) Be operated according to the manufacturer recommendations and only burn waste approved by the commissioner;
- (5) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (6) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (7) Not emit particulate matter in excess of:
  - (a) five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (8) Not create nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

The manufacturer guarantees each PM emissions from the burn-off ovens to less than 0.3 pounds per thousand pounds of dry exhaust gas at standard condition corrected to 50% excess air.

## Conclusion

The operation of this metal paint stripping and allied services operation shall be subject to the conditions of the attached Exemption **043-12805-00044**.



## Appendix A: Emissions Calculations

Page 1 of 1 TSD App A

### Natural Gas Combustion Only

MM BTU/HR <100

### Small Industrial Boiler

Company Name: RediStrip of New Albany, Inc.

Address City IN Zip: 4160 Capital Drive, New Albany, Indiana

Exemption No.: 043-12805-00044

Reviewer: Aida De Guzman

Date Application Received: October 5, 2000

#1 oven with 2 burners total rate of 0.5 MMBtu/hr

#2 oven with 2 burners total rate of 0.9 MMBtu/hr

#3 oven with 2 burners total rate

of 1.5 MMBtu/hr

#4 oven with 3 burners total rate

of 3.0 MMBtu/hr

1 rinse tank burner @ 0.25 MMBtu/hr

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

6.2

53.9

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.1	0.2	0.0	2.7	0.1	2.3

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).